

ABSTRACT

A protein construct comprising a pilus protein portion, preferably a structurally stabilized pilus-protein, and an additional, or effector, portion other than a pilus protein or chaperone and wherein said effector portion serves to stabilize the pilus protein portion and to confer a therapeutic activity, such as vaccine activity or anti-microbial or anticancer activity, on the protein construct is disclosed. Such effector portion commonly comprises a donor strand complementary segment capable of structurally stabilizing a pilus protein subunit and attaching the auxiliary portion to said subunit to form the pilus protein analog of the invention. Methods of using said protein constructs are also disclosed as well as the formation and use of analogs comprising fragments of a pilus protein linked to effector components to produce immunogenic and/or therapeutic activity.